Minnesota Plant Press

The Minnesota Native Plant Society Newsletter

www.mnnps.org

Volume 33 Number 1 **Winter**

Monthly meetings

Thompson Park Center/Dakota Lodge
Thompson County Park
1200 Stassen Lane
West St. Paul, MN 55118

The Minnesota Native Plant Society meets the first Thursday in October, November, December, February, March, April, May, and June.

Check at www.mnnps.org for more program information.
6:30 p.m. - Social period
7–9 p.m. - Program, Society business

March 6: Commercial Logging: a Tool in the Barrens Restoration Toolbox? by Gretchen Miller, Minnesota Department of Natural Resources.

March 22: Annual Symposium at the Bell Museum of Natural History

April 3: Mimicry in Orchid flowers by Dr. Brian O'Brien, Gustavus Adolphus College, Dept. of Chemistry.

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Purple meadow-rue (*Thalictrum revolutum*) in Minnesota

by Lynden B. Gerdes, Botanist,Minnesota Biological Survey, MN DNR

In 1914, during the months of July, August and September, Ned Huff was working in the woods of northern Lake County. He was not a logger, but a botanist cataloging the early flora of Minnesota. During this time period, Professor Ned Huff (respectfully referred to as Ned from this point forward) collected approximately 250 plant specimens from the North Kawishiwi and South Kawishiwi River area. On July 6, 1914, he made the first collection of purple meadow-rue (*Thalictrum revolutum*) in Minnesota. Typical of the time period, specific information relative to the plant's location and associated habitat was vague. We were basically provided the date, the river's name and "swamp" for the habitat description. Such brevity of detail presents an added challenge to botanists attempting to relocate a historic plant discovery.

It appears that purple meadow-rue was not collected again in the state until June 24, 2008, when it was observed by Minnesota Biological Survey (MBS) staff growing along a small, open canopied stream in the Boundary Waters Canoe Area Wilderness (BWCAW) in St. Louis County. The species was growing with tall meadow-rue (*Thalictrum dasycarpum*), a commonly occurring plant in the area. Both species pretty much appear identical and it is not until careful observations are made with a hand lens that one might detect tiny, stalked glands on the undersides of the leaves and portions of the inflorescence. These glands are present on purple meadow-rue and absent on tall meadow-rue. Follow-up work back at the lab using a microscope with higher magnification and good side lighting aids in observing the glands and provides more confidence in species identification.

On June 18, 2012 a return trip was made to the North Kawishiwi River in pursuit of Ned's long lost purple meadow-rue. Heavy storms were in the forecast and the skies were dark and threatening as my partner and I began our paddle into the wilderness. There was nothing leisurely about our paddling and portaging as we had our sights set on a campsite that would provide us our perceived botanical vantage in the days ahead. Upon reaching the campsite, the tents and tarps went up quickly and, as if on cue, the storm let loose. Our first day of botanizing was spent hunkered beneath the tarp observing the forest and all its flora toss in the wind and soak itself

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MNNPS Board of Directors

President: Scott Milburn, board member, scott.milburn@mnnps.org

Vice President: Shirley Mah Kooyman, shirley.mah.kooyman@mnnps.org

Treasurers, membership data base: Ron and Cathy Huber, ron.huber@mnnps.org

Ken Arndt: board member, field trip chair, ken.arndt@mnnps.org

John Arthur: board member, john.arthur@mnnps.org

Steve Eggers: board member, steve.eggers@mnnps.org

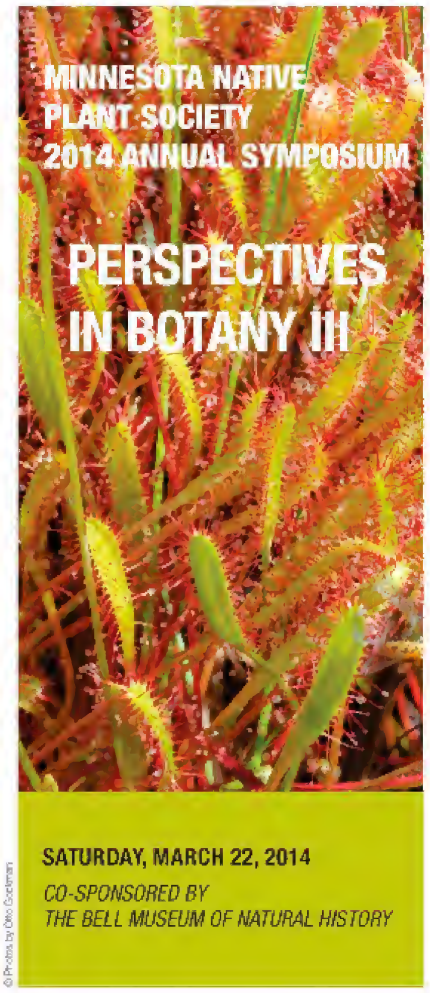
Otto Gockman: board member, otto.gockman@mnnps.org

Peter Jordan: board member, peter.jordan@mnnps.org

Mike Lynch: board member, mike.lynch@mnnps.org

Jyneen Thatcher: board member, jyneen.thatcher@mnnps.org

Angela Anderson: board member, angela.anderson@mnnps.org



Registration for the annual symposium ends on March 20, 2014. Be sure to sign up and not miss the event.

Minnesota Native Plant Society's purpose

(Abbreviated from the bylaws)
This organization is exclusively organized and operated for educational and scientific purposes, including the following.

1. Conservation of all native plants.
2. Continuing education of all members in the plant sciences.
3. Education of the public regarding environmental protection of plant life.
4. Encouragement of research and publications on plants native to Minnesota.
5. Study of legislation on Minnesota flora, vegetation, ecosytems.
6. Preservation of native plants, plant communities, and scientific and natural areas.
7. Cooperation in programs concerned with the ecology of natural resources and scenic features.
8. Fellowship with all persons interested in native plants through meetings, lectures, workshops, and field trips.

MNNPS Welcomes the following new members

The Society gives a warm welcome to the new members who joined during the third and fourth quarter of 2013. Listed alphabetically, they are:

Susan Abelson, St. Louis Park
John Almendinger, Grand Rapids
Angela Baker, Rushford
Donald Beck, Maple Grove
Genevieve Bolling, Minneapolis
Linda Bruemmer, St. Paul
Hugo Cota-Sanchez, Saskatoon, SK
Joe Gathman, St. Paul
John Hamer, Mound
Emmet Judziewicz, Stevens Pt, WI
Megan Keller, Arden Hills
Jeffrey Niblack, Fridley
Carol Olmon, White Bear Lake
Scott Seigfreid, North Mankato
Kathryn Swanson, Fridley
Mark Widrlechner, Ames, IA
Peter Wragg, St. Paul

New Lifetime Members

The Society has four new Lifetime members. Welcome and thank you to Jeanette H. Leete and Sean Hunt of White Bear Lake, MN. Past-President of MNNPS, Jason Husveth, who was our very first Lifetime member, has just honored long-time board member Ken Arndt and wife Erika Arndt with our very first "gift" Lifetime membership. Thank you Jason, and thanks also to the Arndts for many hours and years of service to our Society.

MNNPS questions?

Go to www.mnnps.org to see the news about field trips, meetings, and committees, and all issues of this newsletter since 1982.

Thalictrum revolutum contd.

in some 8 cm of rainfall.

In the days that followed, we approached every patch of meadow-rue we could find. No potential purple meadow-rue was going to evade our efforts. We soon were reminded just how common, the common tall meadow-rue actually was in the area. As we waded into each new patch of *Thalictrum*, we would swing up our hand lens and begin to look for those tiny glands. Find a plant, snip a leaf, stretch it out over your finger, find the best backlighting, and peering through the lens look for the glands. "I see flat hairs." "These hairs are short." "These ones are longer and many of the hairs are divided into segments." "Are these glands?" After several days of intensely doing this it was as if we were standing in a field of poppies and not quite as confident of what all we were seeing. We would often share our leaves with one another and ask for second opinion. Yes, we were having fun in the bugs but maintaining focus and keeping an eye on the prize. We were determined and not going to let Ned down in our pursuits. In some sense, we wanted to find a purple meadow-rue and allow ourselves to be transported back in time those hundred years, to somehow stand there in the swamp with Ned and the long lost purple meadow-rue bridging time and space with a moment of euphoria.

Pressed specimen of purple meadow-rue (~60 cm tall). Photos by Lynden B. Gerdes

On June 23rd, in the mid-morning, we landed in our canoe along the shores of the river and got out to inspect another patch of meadow-rue. Leaf samples from the immediate shoreline all appeared to be within the range of hairiness of those sampled previously on our trip. As we looked closely at a leaf from a plant maybe 2.5 meters inland from the water line, there was some uncertainty about what we were observing. "These look different." The bottom of the leaf had very short hairs that appeared to possibly have some swollen knobs or glands at their tips. But things were small and difficult to clearly see so no definitive identifications were derived. We collected a plant, made some notes about it, and later that day arranged it in our plant press mentally registering it as being suspect. From that time on during our trip, we never knew for sure if we had found *Thalictrum revolutum*. We did say though that other than the "one" we had in our press, we had not seen any other purple meadow-rue. As a result, there was no spontaneous celebrating, hooting or hollering that took place for finding our prized meadow-rue during our trip. What was ours was the genuine satisfaction that accompanies a day of good physical work in the wilderness, a diversity of specimens nicely arranged in the press, and time spent afield with a determined and kindred companion.

Glandular lower (paler) leaf surface of purple meadow-rue.

Glands on the undersides of purple meadow-rue leaves.

So, we ended that trip with some uncertainty, but a week later when the specimen was placed under the microscope those short swollen hairs appeared more clearly to be the stipitate glands we had been looking for. We had indeed found our meadow-rue, even though we did not know for sure we had. I'm sure there are many possible morals to this story. There is likely as much or more to learn from those lessons than in the botanical discovery itself.

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Thalictrum revolutum contd.

As for Ned Huff, my partner and I carried a ledger of the plants that the professor had collected during his 1914 excursions. At times during our trip we would read his species list aloud and acknowledge those species as we moved about our day of exploration.

It provided both motivation and inspiration. We also read from his list one night after supper. It was at these times I felt our connection to Ned, a renewed passion for field botany, an appreciation and respect for time and ancestry, and hope that others will have the same opportunities to explore wild places in search of something as seemingly simple and yet beautiful as a flower. I understand that Ned was both a good botanist and noted educator on Minnesota plant life at the University (1906-1945). Seems to me we are still benefiting and learning from his many botanical contributions.

On July 13, 2012, MBS staff found another population of purple meadow-rue in the Bald Eagle Lake area of the BWCAW. Plants were growing in a black ash swamp along a small creek. Both the common tall meadow-rue and the purple meadow-rue were growing in close proximity to each other. This time we were able to detect the glands in the field and feel more confident in what we had found.

To my knowledge, these are the only documented locations of *Thalictrum revolutum* found in Minnesota with the exception of a collection from St. Louis County dated June 27, 1971. The voucher is located at the Bebb Herbarium - University of Oklahoma. The voucher (Siegler & Dusek DS 4511) provides few details but was collected from the Eveleth area near a lake. Its current status is unknown and future investigations seem warranted.

Neonicotinoids in Minnesota's Landscape

by Crystal Boyd, Entomologist, Minnesota Biological Survey, MN DNR

Neonicotinoids are a class of pesticides that is hard to pronounce but easy to find in recent news reports. Neonicotinoids were made available in the mid-1990s, and they were promoted as being safer for wildlife than other pesticides. Neonicotinoids can be applied as a spray, soil drench, seed treatment, or direct injection. It is estimated that 18 tons of neonicotinoids were used on Minnesota farms in 2009, and one additional ton was applied to other landscapes in the state.

Neonicotinoids are systemic pesticides: a plant will absorb the pesticide and transfer it throughout its tissues. This protects the plant from sap-sucking insects such as aphids and leaf-chewing insects such as beetles. It also affects bees, however, because the chemical compounds are transferred to the plant's nectar and pollen. Bees rely on these floral resources for nutrients.

To consider these effects, the Xerces Society for Invertebrate Conservation recently published the report "Are Neonicotinoids Killing Bees?" It distinguishes between products marketed for agricultural crops and those offered for ornamental landscapes. For example, it notes that "neonicotinoids can be applied in much greater concentrations in gardens than on farms, and with fewer restrictions. These products do not carry any warning about hazards to bees or other pollinators."

A common site in the prairie. This bumble bee is feeding on Rough blazing star (*Liatris aspera*).

Neonicotinoids affect wildlife beyond bees, and researchers are

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Neonicotinoids contd.

examining their relationship with aquatic invertebrates and birds.

The American Bird Conservancy summarized its stance in March 2013 by publishing "The Impact of the Nation's Most Widely Used Insecticides on Birds." This report states that "A single corn kernel coated with a neonicotinoid can kill a songbird. Even a tiny grain of wheat or canola treated with the oldest neonicotinoid, imidacloprid, can poison a bird."

These impressive reports from national organizations have not gone unnoticed in Minnesota. In May 2013, the Minnesota Legislature passed H.F. 976 to require, in part, a report that includes the process and criteria that the commissioner of the Minnesota Department of Agriculture would use to perform a special review of neonicotinoids. This report is currently available on the MDA website, and a review of neonicotinoids has begun.

The recent pollinator legislation has also spurred a number of grant proposals about pollinators to the Legislative-Citizen Commission on Minnesota Resources (LCCMR). Vera Krischik, an Associate Professor in the Department of Entomology at the University of Minnesota, has proposed a grant titled "Protecting Bees by Understanding Systemic Insectides." In part, this grant would determine the amount of imidacloprid in native plants near crops treated with the insecticide. It would also measure the impacts of imidacloprid residue on the health of native bumblebee colonies. This work would fill large gaps in knowledge about the interactions between neonicotinoids and Minnesota's native plants and pollinators. "Neonicotinoid" may remain difficult to pronounce, but the topic seems likely to appear in local news reports for some time to come.

President's Column

by Scott A. Milburn

Symposium planning is almost complete with all of the speakers lined up and the brochure online. This year's overall emphasis is similar to the past two years with talks on botany and ecology, since this seems to be a winning formula. The first program, presented by Mark White of The Nature Conservancy, will be on the issue of assisted migration which is a hot topic these days. This subject is gaining much attention, and it is important to evaluate the pros and cons of action and inaction. We are also fortunate to have two of the more prominent botanists from the Midwest presenting on their areas of expertise. Dr. Robert Freckmann of the University of Wisconsin Stevens Point will be sharing his expertise on the difficult but interesting Panic-grasses, and Dr. Harvey Ballard of Ohio University will be sharing his insights on violets. As happens to be the case, the subject of botany attracts all sorts of people including full-time musicians like Perry Scott. Perry is a longtime cellist with the Indianapolis Symphony Orchestra, but has an intense interest in botany and has been exploring the BWCA and Quetico for years. He will be sharing his stories and experiences through the years. We will be closing out the day with a talk on another hot topic, bees and their worrisome decline. The event will once again be held at the Bell Museum and catered by our friends at Trotter's Café.

In other news, we will be having board elections at the March monthly meeting. We are looking for those with interest and time to run for the board. The perfect candidates are those with a commitment to maintain the direction of the Society as set forth by the founding members and an individual that has intiative. We are also looking to fill the position of program chair. The board is currently sharing duties on this role, but we are looking for one dedicated program chair. As a volunteer organization, we are only as strong as our volunteers and we need folks to step up and help maintain the Society.

Finally, I would also like to mention the passing of Winston W. Borden this past January. Mr. Borden had been a former state legislator, representing the Brainerd area. He had quite the colorful life and a supporter of progressive ideas. I am unaware if he was ever a member of the Society but there appears to be a connection. Winston requested that he wanted memorials to go the Society. That was a very honorable act.

Plant Lore

by Thor Kommedahl

What is sessile bellwort, or wild oats?
Sessile bellwort, also called wild oats, is *Uvularia sessilifolia,* in the lily family.

How did it get its names?
Uvularia is derived from uvula, which hangs from a person's palate in the throat, and denotes the hanging flower. *Sessilifolia* means that leaves have no petioles. The name "wild oats" is a mystery, and could mean resemblance to wild oats (*Avena fatua*) or refer to its being a hardy plant. Bell suggests resemblance to bell flower and wort indicates use as medicine.

What does the plant look like?
It is a perennial growing from rhizomes, and is up to 12 inches tall. Stems are forked above the middle. Only one creamy-yellow flower of six tepals appears per stem. A capsule contains two or more seeds. Leaves, one per node, are attached to stems without a petiole.

Where does it grow?
The species is native to eastern North America, in wet or dry soil, and in most woodland counties of Minnesota. It blooms April and May.

Is it edible or poisonous?
Edible. Cooked young shoots are eaten like asparagus. The roots are nutritious and extracts are used in diet drinks.

Have they any medicinal properties?
The Ojibwe and Potawatomi made tea from roots to treat backaches and alleviate sore muscles.. It was a folk medicine for sore throats and mouth sores, and has been used to treat diarrhea.

Is it a garden plant?
It can be propagated by division of rhizomes and grown in shady gardens.

And…
Henry David Thoreau, in 1852, wrote "The single modest-colored flower, gracefully drooping,…facing the ground…as if unworthy to face the heavens."

Sessile bellwort (*Uvularia sessilifolia*)

Sessile bellwort (*Uvularia sessilifolia*)

Field Trips 2014

by Ken Arndt

Spring cannot seem to arrive fast enough with this spell of extreme cold. However, this gives us all something to look forward to as things green up.

2014 will be another great year for attending a MNNPS field trip. At this point we are in the early stages of planning several field trips for the upcoming spring and summer seasons. As field trip dates and leaders become finalized we will be posting this information to the Society's website.

If you have never attended one of the Society's field trips then you are missing out. Going on a field trip is a great way to see the many different native plants and plant communities of Minnesota as well as meeting others who share a passion for native plants. Field trips are just one of the benefits of being a member of the Society, so consider joining and meeting others with similar interests.

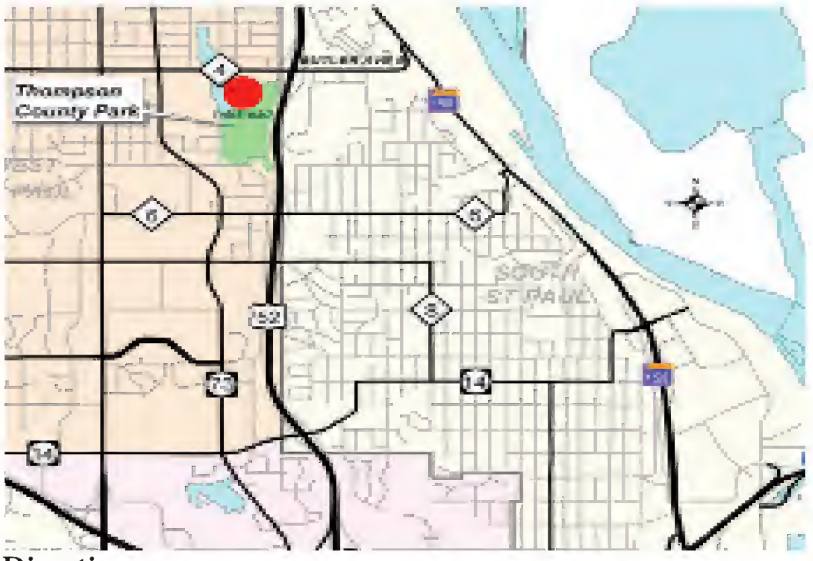
Once a field trip has become finalized you can register for it by visiting our website and going to the field trip page or by attending one of our monthly general meetings where sign-up sheets will be available. Most field trips will have a limited number of registrants due to site sensitive areas that are encountered so early registration is strongly encouraged.

If you or anyone you know is interested in leading a field trip or has suggestions as to where they would like to see the MNNPS lead a trip to, email me at ken.arndt@mnrinc.us. We are always looking for additional field trip leaders and co-leaders to take us into the many diverse regions of Minnesota.

Minnesota Native Plant Society
P.O. Box 20401
Bloomington, MN 55420

Winter 2014

Dakota Lodge, Thompson County Park
1200 Stassen Lane, West St. Paul, MN 55113



Directions:
Take Highway 52 to the Butler Ave. E. exit in West St. Paul.
Go west on Butler 0.2 mile to Stassen Lane.
Go south on Stassen Lane to Thompson County Park.

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Volume 33, Numbers 2-4 **Summer, Fall, Winter 2014**

Monthly meetings

Dakota Lodge
Thompson County Park
1200 Stassen Lane
West St. Paul, MN 55118
First Thursday Oct.-Dec., Feb.-June
6:30 PM-Social
7-9 PM- Business and program
Check website for details or changes

Fall Programs 2014

November: Peggy Booth and SNA staff: "SNA Highlights: SNA Strategic Land Protection Plan & SNA Outreach Initiative." POM: Badoura Pines

December: Phyllis Root, "Writing Picture Books: Spreading the Word about Our Native Habitats" POM - *Liatris aspera*, Rough Blazing star

Spring Programs 2015

February: David Remucal, Rare plant conservation at the Minnesota Landscape Arboretum. POM: *Polemonium occidentale* (Western Jacob's ladder)

March: **Chris Lenhart**. Potential hydrologic and ecologic impacts of Emerald Ash Borer on black ash wetlands. POM: TBD

April: Susan Wilkin and Marilyn Garber, Eloise Butler Wildflower Garden and Florilegium project. POM: TBD

May: Janeen Ruby, Designing and testing protocols for long term monitoring of *Cypripedium candidum,* small white lady's slipper. Place of the month: Expandere Wildlife Management Area

June: Bonnie Harper-Lore, What you should know about invasive plant policy. POM: TBD.

Changes in Society Leadership

The Minnesota Native Plant Society was formed in 1982 by a group of enthusiastic professional botanists, wildflower lovers, conservationists, and native gardeners. In its first year, the Society had 63 single and 30 family members. The Society is governed by a nine member Board of Directors elected by the members at large each spring. Members of the Board serve a three year term that expires in June and can serve consecutive terms. The society's officers, who do not need to be Board members, are elected by the Board. Members can nominate themselves for office. Messages from outgoing President Scott Milburn and new President Mike Lynch and can be found on pages 2 and 3 respectively. A full list of board members and society functions can be found on page 3.

Save the date

The annual MNNPS symposium**, "Botanical Ramifications of Environmental Change"** will be held on March 21 at the Bell Museum of Natural History. Speakers include Charles Umbanhowar, St. Olaf College; Ruth Shaw, University of Minnesota, Jeremy Ash, Plant Ecology Lab, University of Wisconsin; Steven Travers, North Dakota State University; and Pati Vitt, Chicago Botanical Garden. Topics include climate as a driver of past vegetation change, genetics of adaptation, identification of Midwestern plants most vulnerable to climate change, evidence of phenological shifts during the 20th century, and the complications of translocation as a way of addressing climate change. Cost of the Symposium is $45 for members, $55 for non-members, and $25 for students. Attendees who join the society at the time of the Symposium receive the member rate.

Outgoing President's Message

Scott Milburn

I have been honored to serve as an officer the past decade with two years as Vice President and eight years as President. It's been a great run and I would like to thank some of the key people who were implemental in our success during this time. First and foremost, Ron and Cathy Huber operate as a unit responsible for the treasurer's position and membership. This serves as notice of my appreciation of their efforts. Another key person in my opinion has been Gerry Drewry, long time editor of the Plant Press. Editor is a difficult job and Gerry set the bar extremely high during her tenure. Elizabeth Heck is another individual of importance during the past ten years. Elizabeth took us from the beta version of our website to the current form. She also provided the updates even when off and away in tropical settings. Linda Huhn and Andres Morantes are also to be thanked for serving as program chairs as well as Ken Arndt as field trip chair.

What I enjoyed most during my time was serving as the symposium chair. The key lesson for me was to keep things simple. We found a permanent home and partnership with the Bell Museum and a local caterer (Trotter's Café). Both entities simplified the process and reduced much of the planning time. We also had great topics varying from landscapes and regions to pure botanical talks. I took pride that we were able to land high profile botanists including Welby Smith, Dr. Anton Reznicek, Dr. Don Farrar, Dr. John Semple, Dr. Hugo Cota-Sanchez, Dr. Harvey Ballard, and Dr. Robert Freckmann. For those paying attention since 2007, the brochure has been in the same format and that was no accident. I would like to thank Jeanne Schacht for designing the initial brochure and the subsequent brochures. The annual event was always well attended and the feedback from the members was very positive. This annual event is critical to our success as an organization and it is a big factor in what separates us from other groups. It is my hope that we do not deviate from this high quality approach moving forward.

Another thing that I am proud of is the fiscal health of the Society. We had roughly $17,500 in the coffers when I first came on as president. In my time we have donated over $12,000 to various organizations and we have kept membership fees the same. Upon my exit, we had over $26,000. One of the last moves made during my time was to provide financial support to the Minnesota Wildflowers website in the neighborhood of $4,000. Ken Arndt was the architect behind this and we deemed this as a great investment. A quarter of the money is considered a donation and the remainder is to be paid back over a three-year period. In exchange, we are provided ad space on their home page. That ad space is key to providing the necessary exposure we need. The amount of web traffic on the Minnesota Wildflowers website is significant and impressive. This far outweighs the benefits we have seen thus far with social media.

In closing, I will share with you that I needed a break for a bit. People in key positions moved on and we have not been able to find their replacements, thus the conundrum that many volunteer groups face. We had fewer resources to pull from and as everyone knows, time is finite. I wish I had more to give now, but other obligations persist from family to work. I look to continue on as a board member and I will focus on providing guidance and ensuring that we stay true to the mission of the Society.

The Minnesota Native Plant Society:
A non-profit organization dedicated to the conservation and appreciation of Minnesota's native plants and plant communities through education and public awareness.

Society leadership

Board members' names are followed with the year their term expires in parentheses.

President: Mike Lynch (2017)

Vice President: Shirley Mah Kooyman

Secretary: Rob Cahalan (Board 2017)

Treasurer & Membership Database:
Ron & Cathy Huber

Field Trip Organizer: Ken Arndt (2016)

Programs and newsletter:
Jyneen Thatcher (2016) & Nancy Sather

Webmaster: John Arthur (2015)

Social Coordinator; Vacant

Social media: Vacant

Other Board members:

Angela Anderson (2016)

Steve Eggers (2015)

Otto Gockman (2017)

Scott Milburn (2015)

Incoming President's Message

Mike Lynch

My fellow Minnesotans, ask not what your native plant society can do for you, ask what you can do for your native plant society.

The Minnesota Native Plant Society is an interest group bound together by a common passion for our native flora and plant communities. It is the membership that makes this society so interesting. There are so many people from different backgrounds and experiences with native plants who come together to share their knowledge and learn from each other. Whether you are veteran botanists who have been studying plants for decades, or an avid amateur naturalist who wants to include wildflowers in their garden, all of us bring something to the table.

Over the years I have enjoyed meeting so many of you at meetings and I am continually amazed at all the smart passionate people out there. But seeing you in meetings or on field trips is not enough. I want more. I challenge all of you to make your mark on the native plant society. We need people who want to volunteer their time, energy and knowledge to help support our mission. Whether that is leading a field trip, representing the society at an event, writing columns for the newsletter or recruiting new members, you all have unique talents that will help the society continue to grow and provide a great resource for the state.

MNNPS Outreach efforts

Jyneen Thatcher

In an effort to expand our outreach efforts, the Society displayed our information at the Society for Ecological Restoration, Great Lakes division meeting; the Landscape Revival in Roseville (a festival for native plant restoration interests); and other similar venues. We are tracking membership recruitment from these events, to see which are most effective. If you know of upcoming events that the Society should attend, please contact Jyneen Thatcher. The Society warmly welcomes new members at any time of year. Members receive reminders of upcoming meetings, the newsletter, and the member rate at the annual symposium.

Technical or Membership Inquiries: contact@mnnps.org

Website: http://www.mnnps.org

Sedge Meadows, Bogs and Swamps: Field Trip to Cedar Creek Ecosystem Science Reserve

Steve Eggers

On Saturday June 28th, a group of 13 composed of MNNPS and MN Wetland Professionals Association members explored some of the wetland jewels at CCESR, which is located in Anoka and Isanti Counties and the Anoka Sand Plain. Dire forecasts of thunderstorms and heavy rain had been made starting the two days leading up to that Saturday, but during the field trip the weather was pleasant with alternating periods of sun and clouds.

Our first stop was the south shore of Fish Lake and its adjacent expanse of sedge meadow. We observed aquatic vegetation including large-leaved pondweed (*Potamogeton amplifolius*), water shield (*Brasenia schreberi*), white and yellow water lilies (*Nymphaea odorata* and *Nuphar variegata*, respectively) and wild rice (*Zizania palustris*). Wire-grass sedge (*Carex lasiocarpa*) dominated the sedge meadow, which also included Canada blue-joint grass (*Calamagrostis canadensis*), tussock sedge (*Carex stricta*), mad-dog skullcap (*Scutellaria galericulata*) and invading cattails (*Typha* spp.). Along the sand ridge separating the sedge meadow and lake we found winterberry holly (*Ilex verticillata*) in full bloom. We walked back through an oak savanna, managed with prescribed burns, and were treated with a colorful white/yellow display of flowers of northern bedstraw (*Galium boreale*) and puccoon (*Lithospermum carolinense*). This is ideal habitat for red-headed woodpeckers, a species in decline, and as if on cue one did a fly-by. We stopped at two, small, isolated wetland basins within the savanna. The first was a seasonal basin dominated by long-scaled tussock sedge (*Carex haydenii*). Canada blue-joint grass and woolgrass (*Scirpus cyperinus*) were present as well. Barbara Delaney explained how the periodically exposed soil along the margins of these seasonal wetlands is prime habitat for some of the rare plant species of the Anoka Sand Plain. The second isolated wetland basin was very different floristically although it was only a stone's throw away. It appeared to be more acidic as evidenced by the dominance of bog sedge (*Carex oligosperma*) and presence of leatherleaf (*Chamaedaphne calyculata*) and royal fern (*Osmunda spectabilis*).

Next it was off to Cedar Bog Lake and an easy hike along a boardwalk through a high quality northern white cedar (*Thuja occidentalis*) swamp. Due to the wet spring, 2014 was one of the worst years in memory for mosquitoes just about anywhere in Minnesota, but they were inexplicably absent this day even in the dark confines of the cedar swamp. We did the yellow birch test – cut twigs have the scent and flavor of wintergreen – although I was reprimanded for breaking off too large a piece of a twig (no collecting allowed on CCESR without a permit). Halberd-leaved tearthumb (*Persicaria arifolia*) and poison sumac (*Toxicodendron vernix*) were observed on the walk in. The boardwalk terminated at an open water pond fringed with water willow (*Decodon verticillatus*). We were struck by the silence as if it invited contemplation of glacial time.

Our last stop was another boardwalk – Beckman Lake Bog. High water levels had submerged most of the boardwalk so it was somewhat tricky navigating the bog. No one slipped and got into difficulty that I saw. Beckman Lake Bog is a floating mat with characteristic species of acid bogs. We observed the *Sphagnum*-moss mat and bog sedge, poor sedge (*Carex magellanica*), tawny cottongrass (*Eriophorum virginicum*), three-way sedge (*Dulichium arundinaceum*), bog buckbean (*Menyanthes trifoliata*), pitcher plant (*Sarracenia purpurea*) and sundew (*Drosera rotundifolia*). A few small cranberries (*Vaccinium oxycoccus*) were in bloom – the flowers have flared-back petals like shooting stars. Other members of the heath family observed were leatherleaf, Labrador tea (*Rhododendron groenlandicum*) and bog rosemary (*Andromeda polifolia*). This was the conclusion of the field trip and the timing could not have been better. Skies were darkening to the west and winds were starting to whip up. The forecasted thunderstorms were rolling in.

Pictures from the Cedar Creek Field Trip

Seasonal wetland

Cedar swamp

Beckman Lake boardwalk

Linda Huhn at Blueberry Hill near Bayport.

Other field trips

Jyneen Thatcher

On June 14, 2014, a small group of members joined John Moriarty for a tour of the restored prairie at Crow-Hassan Regional Park Reserve. John explained the site history, and pointed out some of the challenges faced in this restoration. The site has a variety of plant community types, but most time was spent on the dry prairie, where we saw multiple species of *Penstemon* and *Houstonia* in bloom, while the blue-eyed grass and pasque flower had finished flowering. On September 21 a small group visited Blueberry Hill, a dry prairie remnant overlooking the St. Croix River near Bayport.

State Funds Approved for New Museum and Planetarium

Martin Moen, Bell Museum

In May the State of Minnesota approved $51.5 million for a new natural history museum and planetarium. Final design work is now underway to create a modern museum and planetarium with the programs and amenities that 21st century audiences expect. The new facility will be built on the northwest edge of the University's campus in St. Paul, a location that is close to both Minneapolis and St. Paul and one that provides good access to major freeways and mass transit. The project will expand science, technology, engineering, and math (STEM) education statewide, enhance the museum's role of training undergraduates in science education, and provide a public portal to University research. The project is not expected to impact collections at the University of Minnesota Herbarium, presently housed in the Biological Sciences Building on the St. Paul Campus.

MNNPS Membership update

Ron Huber

New members during the 1st quarter

Stacy Anderson, Minneapolis, MN
Gabe Atkins, Brooklyn Park, MN
Harvey Ballard, Athens, OH
Arla Carmichiel, Long Lake, MN
Belwin Conservancy, Afton, MN
Crystal Boyd, Burnsville, MN
Elizabeth Brombach, St. Paul, MN
Elizabeth Brown, St. Paul, MN
Anthony Demars, Minneapolis, MN
Chris Firkus, Minneapolis, MN
Shelby Flint, St. Paul, MN
Robert Freckmann, Stevens Point, WI
Kerry Furtney, St. Paul, MN
Nicholas Goldsmith, St. Paul, MN
Katy Goodwin, Minneapolis, MN
Dena Grossenbacher, Minneapolis
Paul Hoppe, Ogilvie, MN
Alison Hruby, White Bear Lake, MN
Christopher Johnson, Scandia, MN
Steve Kelley, Long Lake, MN
Courtney Kerns, Grand Rapids, MN
Kirk Larson, Bemidji, MN
Susan J. Lindoo, Newport, MN
Ryan Lisson, St. Paul, MN
Dan McSwain, Stillwater, MN
Erin O'Leary, Andover, MN
Robert Payton, Minneapolis, MN
Anne Pfankuch, West St Paul, MN
Victoria P. Price, Eden Prairie, MN
Gary J. Rathman, Comfrey, MN
Sarada Sangameswaran, Minneapolis
Perry Scott, Indianapolis, IN
Ruth Shaw, Roseville, MN
Michael Sonnek, Mapleton, MN
John Thayer, Cottage Grove, MN
John West, Minneapolis, MN

New members during the 2nd and 3rd quarter

Britta Anderson, Minneapolis, MN
Paula Baker, St. Louis Park, MN
Michael Benson, Otsego, MN
Jarod Bladen, River Falls, WI
Thomas & Susan Christiansen, Edina, MN
Audrey Cullen, Minneapolis, MN
Susan Granger, Morris, MN
Drew Guhanick, Andover, MN
Wendy Haan, Minneapolis, MN
Jennifer Kamm, Plymouth, MN
Mary Elaine Linden, Golden Valley, MN
Thomas & Stephanie Long, Eden Prairie, MN
Stephen Mastey, St. Paul, MN
Caroline Oswald, Bloomington, MN
Debra Ott, Casselton, ND
Eric & Debra Sanden, River Falls, WI
Chao Xiong, Minneapolis, MN

New members during the 4th quarter

Keylor Andrews, Gem Lake, MN
Jean Beales, Brooklyn Center, MN
Glynn E. Behmen, Edina, MN
Maxine Bethke, Oakdale, MN
Kristina and John Delaundreau, St.Paul
Richard Hansen, Letcher, SD
Duane Ed Henricks, Valley City, ND
Kimball Knutson, Minneapolis, MN

New Lifetime Members 2015

Thank you to longtime family members Mary Shedd and Steve Wilson, of Tower, MN for becoming our newest Lifetime Members on January 6, 2015. Your continued support is very much appreciated.

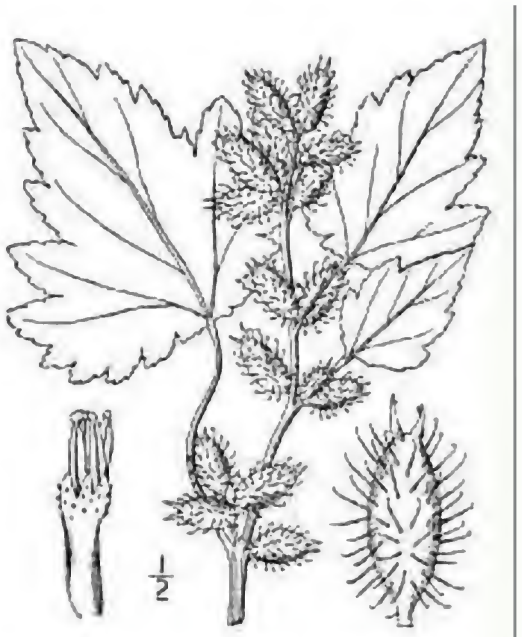
The Society warmly welcomes the 66 new members who joined in 2014.

The Minnesota Native Plant Society membership year starts January 1.
Dues may be paid at the February meeting or mailed to
P.O. Box 20401, Bloomington, MN 55420.
Membership categories are:
• Individual or family, $15; • Student or senior, $8; • Institution, $20; • Donor, $25; • Lifetime, $300

Plant Lore—Cocklebur

Thor Kommedahl

What is cocklebur and how did it get its name?
Cocklebur (*Xanthium strumarium)* is a member of the aster family. *Xanthium* means yellow, as a yellow hair dye can be made from the thick yellow plant sap. *Strumarium* means cushion-like or swollen and refers to its once medicinal use for treating swollen necks.



USDA-NRCS PLANTS Database
Britton, N.L., and A. Brown. 1913.
Illustrated flora of the northern states
and Canada. Vol. 3: 346.

Where does it grow?
Native to Minnesota and North America, but distributed worldwide, cocklebur is now a cosmopolitan weed in road sides. It was probably naturally a plant of river shores such as its present habitat at Cannon River Bottoms. It is an important noxious weed in soybean and corn fields. Because of its importance as a weed, it is presently the subject of intense genetic analysis.

What does the plant look like?
Plants are annuals up to 5 feet tall. Leaves vary from heart-shaped to shallow 3-5 lobed. Male and female flowers are separate. Female flowers are enclosed in a 2-chambered bur (involucre) covered with stout, hooked prickles adapted to dispersal by animals. Oval burs contain fruits (achenes) of unequal size in two chambers, and germinate at different times. From 500 to 5400 burs can be produced by a single plant.

Are the plants edible or poisonous?
Not generally edible; however, seeds have been ground, mixed with cornmeal, made into cakes, and steamed for food. The nutritional quality of cocklebur plants is slightly less than that of alfalfa. On the other hand, plants are toxic to grazing animals. The achenes and seedlings contain the toxin carboxyatratyloside. Mature plants also contain at least four other toxins. Humans and animals have died from ingesting plants.

Does the plant have other uses?
Zuni people made a poultice by grinding seeds with squash seeds and corn grains to apply to wounds to remove cactus splinters. On the down side, burs caught by sheep result in lower value of fleece.

Editor's note: A full list of reference materials about cocklebur can be found on the source page for the species at the USDA PLANTS website: http://plants.usda.gov/java/reference?symbol=XAST
Additional information can also be found on the Plants for a Future webpage:
http://www.pfaf.org/user/Plant.aspx?LatinName=Xanthium+strumarium

Minnesota Native Plant Society
P.O. Box 20401
Bloomington, MN 55420

SUMMER-FALL-WINTER
2014-2015

Dakota Lodge, Thompson County Park
1200 Stassen Lane, West St. Paul, MN 55113

Directions:
Take Highway 52 to the Butler Ave. E. exit in West St. Paul.
Go west on Butler 0.2 mile to Stassen Lane.
Go south on Stassen Lane to the parking lot at the end of the road in Thompson County Park